Abnormal psychology Sleep Apnea

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**Abstract**

Sleep apnea is being characterized with repeated and upper airway collapse that results in oxygen desaturation as well as sleep fragmentation. There are various consequences of this disorder that mainly includes daytime drowsiness, sleepiness, tiring sleep, fatigue and more risk of being a victim of depression, cognitive deficits and reduced level of quality life. Sleep apnea has become an important and most relevant part of the psychological field. In this study, all the major things are being discussed that one should know about sleep apnea. For creating awareness among people about this disorder, many types of researches have been done for knowing its origin and history. Also, a lot of work has been done for identifying all the possible treatments for curing and treating various types of sleep apnea. Challenges that patient of sleep apnea faces also show that this is becoming a severe health issue in America that needs to be addressed timely. It is rightly said that if a disorder is not going to cure timely, it will cast drastic effects on the sufferers so by having an in-depth of this sleeping disorder, one can get to know about its effects and cure.

**History**

Sleep apnea is one of the serious sleep disorder in which a person faces breathing issues as in this disorder breathing stops and starts repeatedly. In other words, it could be said that in this disorder breathing of the individual got disrupted during sleep. Breathing patterns change with a deeper sleep, but as a result, the person does not get enough sleep. Even after sleeping for years individual suffering from sleep apnea feels tired. By taking a look at the history, it could be seen that history of sleep was the discovery of sleep apnea in medicines and it was first discovered in 1965. It won’t be wrong to say that this sleep disorder has been observed since ancient times, as there are symptoms of heavy snoring that dates almost 2000 years back. In the late 19th century, a term Pickwickian syndrome was adopted for describing symptoms of apneic symptoms, but at that time, researchers termed this issue as being linked with obesity. In the 1960s, it was found that these apneic symptoms were not because of obesity and many pieces of research supported that there is a significant breathing disorder behind these symptoms. It could be seen that much research has been done on sleep apnea from 1975-80 and in this period 319 articles were written about this breathing disorder that one faces while sleeping.

Sleep disorders such as sleep apnea have become one of the main health-related issues in the United States. According to the reports, 22 million Americans are suffering from this disorder. 80% of people are being victimized with moderate sleep while 20% severe sleep apnea is undiagnosed. Reports have confirmed that 1 out of 12 Americans suffer from OSA (Obstructive sleep apnea). Currently, there is a population of 326 million in the USA, and 10% are suffering from mild OSA, 3.5% are suffering from moderate OSA. According to the experts, almost 70-80 % remains unidentified.

**Types**

There are three main types of sleep apnea, and these three types are obstructive, central and mixed sleep apnea.

Obstructive sleep apnea:

This type of sleep apnea occurs when the muscles of the throat relax from time to time, which block the airway during the sleep. It causes breathing to stop repeatedly while the person is sleeping. It is the most common type of sleep apnea, and experts believe that it has affected almost 4% males and 2% females (Javaheri et al.,2017). It has been reported by the researchers that only 10% of people seek treatment for this disorder. Majority of the people remain undiagnosed. Obstructive sleep apnea is further divided into three types, and these three types are mild, moderate and severe OSA.

Central sleep apnea:

There is another type of sleep apnea that is termed as Central sleep apnea (CSA). This type of disorder happens mostly when our brain fails to send a strong signal to the muscles that are responsible for controlling breathing. One of the major differences that have been seen in obstructive and central sleep apnea is that OSA is a mechanical kind of issue, but central sleep apnea is a more communicative problem. It is much less common than OSA and researches show that 20% of the sleep disorder cases are CSA. Pieces of evidence show that this type of sleep disorder is mainly because of some medical issues and certain conditions that badly affect brainstem (Jackson et al., 2018). Excessive daytime drowsiness and, headaches and mood swings are the most common symptoms of this sleep disorder. It has been claimed by the researchers that options of treatment of sleep apnea still need to be refined and at the present time, one of the best treatment for mixed sleep apnea is CPAP devices. These should be set at the lowest pressures so that airways could be left open successfully without any obstruction.

Mixed/complex apnea:

It is the combination of both obstructive and central sleep apnea. Patients are being treated with the machines that are used for the treatment of obstructive and central. In 2006, an experiment was conducted in Mayo Clinic, and after this experimentation, it was found that patients who were believed to have obstructive sleep apnea were suffering from mixed sleep apnea.

**Biological and psychological effects of Sleep Apnea**

Following are the biological and psychological effects of the sleep apnea on the body and mind of the individual who suffers from this sleep disorder:

Sleep apnea has become an important disease that should be taken into consideration because of its neurological and cardiovascular effects which damages the human body as stroke and hypertension damages. There is no doubt that there are both biological and neural effects of this disorder on the body, but it won't be wrong to say that effects are more psychological. Effect of sleep apnea is quite evident in the human body. One of the main biological effects of this disorder is that weakens the immune systems that protect the human body from the attack of many diseases, making an individual vulnerable to infection. High Blood pressure is also another biological effect that is caused by sleep apnea. Patients who suffer from sleep apnea are at more risk of heart diseases and may have irregular heart rhythm. Sleep apnea is also going to curb the patient's sexual desire. Asthma is another major issue that is caused by this sleeping disorder. This disorder is also linked with the disease of the fatty liver that becomes more than a normal level, and liver enzyme becomes more active. High blood sugar and low oxygen rate are also caused by sleep apnea.

More psychological effects include depression. There are visible effects of this sleep disorder on the memory and researches claims that people with sleep apnea are more vulnerable to memory loss than people without this disorder. Another major effect that could be viewed on the body is that a person who suffers from this sleep disorder become a victim of mental condition and could not make a good decision and remains confused in most of the situations. It has been seen that lack of sleep makes an individual mentally foggy that makes it hard to solve problems. A person that suffers from this sleep disorder cannot think as well.

**Side effect and challenges of people suffering from sleep apnea**

It is a serious sleep disorder that cast various negative effects on the overall health of the patient. After investigating all the factors and conditions, it won’t be wrong to say that patient because of sleep apnea suffers many sides’ effects and challenges. It has been seen that patients have to face social, biological and psychological challenges when they suffer from this disorder. Side effects of sleep apnea are people feel restless even after sleeping for sufficient hours. Though there are many challenges that patient of sleep apnea faces but breathing challenge is one of the main challenges as the patient while sleeping when got an interruption in breathing, it disturbs his pattern of sleep as well and would take some time to make him/her face regular again. Other life-threatening challenges and uncertainties are regarding the treatments of heart failure

Side effects of sleep apnea are many in numbers, and it has been seen that if the disorder is left untreated, it can lead towards lack of quality sleep that would make a patient uncomfortable for the whole day. Depression is another major side effect that a patient is going to face because of this disorder. Likewise, there are other side effects as well such as a patient would be deficient of energy (Koo et al., 2018). A person, who suffers from sleep apnea, would always be at the risk of increased blood pressure that would increase the chances of stroke. It is also responsible for causing detrimental effects in patients, i.e. problems related to learning and memory, sexual dysfunction, be habitual of falling asleep at work or while driving.

Side effects of sleep apnea cast serious and negative impacts on the overall well-being and health of an individual. Researches have proved that if patients remain undiagnosed, they will experience headache, irritability, mouth dryness and tiredness, etc. sleep apnea's side effects also include stroke, obesity, asthma, and eye disorders. The common symptoms of the sleep apnea are various which indicates the existing of this problem. Some of these symptoms are loud snoring during sleep, suddenly wake up with the dry or sore throat. They are feeling soporific and lack of energy at the day time. It also causes headaches at the morning time (Flaherty et al., 2015). The patient feels sleepiness while driving a car. The patient also forgets things quickly and the mood changes frequently. If the disease is not treated and ignored for a long time, it can cause the risk of high blood pressure, heart failure, stroke, heart attack, and irregular heartbeat. According to the evidence, long-term sleep apnea can lead a patient to death. Due to the continuous sleep disorders affect the other functions of the body and ultimately cause death.

**Treatments and therapies**

Researches have proved that there is no way without testing whether one is suffering from sleep apnea or not. If you are a suspect, firstly you just need to see your doctor and sleep study has been the best way for diagnosing this disorder. It has been seen that if one suffers from mild sleep apnea may be one is going to be recommended by the doctor to change his/her lifestyle for staying healthy and happy. For improving the lifestyle, one must lose some weight and give up smoking. Nose allergy treatment will also be suggested by the doctor if one has nose allergies. Certain devices are available for treating sleep apnea and for opening certainly blocked airways; in some severe cases, surgery is needed.

There are many therapies as well that are recommended to patients who suffer from sleep apnea. If a patient suffers from moderate sleep apnea, he/she would be suggested to use a machine that would deliver pressure while the patient sleeps. The pressure that would be given through these machines would be having more pressure than the normal surrounding air. Oral appliances are also used for treating this disorder, and it has been seen that people show willingness for availing this treatment as they find it comfortable, easy to wear, easy to take care and portable.

When other treatments failed then one is only left with the option of surgery. Generally, it has been seen that for at least three months before suggestion a surgery patient is being given all possible treatments but if nothing works then the patient goes for surgery. There are various things included in surgery such as removal of tissues, in this surgery doctor removes tissue from the top of patient's throat or rear of your mouth (Zhu et al., 2018). Tonsils are also removed in such cases. Tissue shrinkage is another surgery that could be done for overcoming this disorder of sleep apnea as in this surgery, doctors shrink the tissue at the back of patient’s mouth by using radiofrequency ablation, but in this surgery, some risk is involved. Jaw positioning is another option in surgery, and in this option, the jaw of the patient is moved forward, and in this way, there would be more space for tongue and soft palate that will lessen obstruction. The option of the implant is also used in surgery. In this option, plastic rods are implanted after giving anesthesia to the patient in the soft palate. Nerve stimulation is another option in surgery and in this kind of surgery a stimulator is going to be inserting for the nerve that controls the movement of the tongue. Stimulation is going to keep tongue in such a position that would keep the airway open most of the time while sleeping. Creation of new passageway is another good option for overcoming this sleep disorder. Tracheostomy is the only option that a patient could use when all the other treatments fail. In this surgery, an opening is being made in the neck of the patient and a piece of meal or tube is inserted through which patient breaths.

**Conclusion**

Sleep apnea is one of the leading sleep disorders which cause major diseases to the patient. It has been found that only 10 percent of the patients go to the doctor to treat this problem. It is both the psychological and biological problem. There are several symptoms of the disease and its effects on the human body. It also causes some mental issues such as depression, stress, and memory loss. The history of this disease is not very old. However, its soaring pace is very high. The possible causes of this disease are the excessive weight and obesity which is directly associated with the soft tissues of the throat and respiratory tract. It leads a patient to certain fatal diseases; however, proper and in-time treatment can help to get rid of this problem. There are two ways of getting rid of this disease; one is to lose weight and other is the surgery to remove the excess tissue from the palate and throat.

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